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| Subject: Place Value | | **Teacher:** | | **Grade Level:**Fourth | **Date(s):**August 29 – September 2, 2016 | |
| **Curriculum Area:** Math | | | | **I Can Statements &Learning Targets** *(I can……..):*  I can explain that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. | | |
| **Content :** *Common Core Standards & Essential Standards*  **4.NBT.1 -** Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.  **Assessment Opportunities**  [Brain Genie](https://braingenie.ck12.org/standards/457#185) – Common Core Standards Review | | | | **Technology Standards &Resources:**  [**http://www.ncpublicschools.org/docs/acre/standards/new-standards/info-technology/gradek.pdf**](http://www.ncpublicschools.org/docs/acre/standards/new-standards/info-technology/gradek.pdf) **- Grade 4 - pgs. 9-10**  [**http://www.internet4classrooms.com/common\_core/recognize\_multi\_digit\_whole\_number\_digit\_one\_number\_operations\_in\_base\_ten\_fourth\_4th\_grade\_math\_mathematics.htm**](http://www.internet4classrooms.com/common_core/recognize_multi_digit_whole_number_digit_one_number_operations_in_base_ten_fourth_4th_grade_math_mathematics.htm)  [Fourth Grade Tasks](http://3-5cctask.ncdpi.wikispaces.net/Fourth+Grade+Tasks)  [Mr. Anker Tests 4th Grade Activities](http://www.henryanker.com/4th_Activities.html) (Assessments)  Livebinder - <http://www.livebinders.com/play/play?id=555306>  Internet4Classrooms [Common Core Math Tasks](http://www.internet4classrooms.com/common_core/3rd_5th_math_tasks.htm)  IXL[Fourth Grade Math Skills](http://www.ixl.com/math/grade-4) - categorized | | |
| Essential Question(s): *(What question(s) should students be able to answer at the end of the lesson/unit?)*  What determines the value of a digit? | | | | **Higher Order Thinking/Revised Blooms:***(Questions that will enable students to find connections or extend learning.)*  How can understanding place **and** place value lead to number sense and effective computing with numbers?  Why is the number to the left ten times greater than the number to the right? | | |
| **Vocabulary:** *Academic/Content*  place value, digit, ones, tens, hundreds, thousands, comparisons, greater than, less than, equal to  Common Core Vocabulary –go to <http://www.graniteschools.org/depart/teachinglearning/curriculuminstruction/math/Pages/MathematicsVocabulary.aspx>  [Interactive Math Dictionary](http://www.amathsdictionaryforkids.com/)–Demonstrate/practice with students | | | | **Teacher Resources:**  [Math Unpacking Document](http://www.ncpublicschools.org/docs/acre/standards/common-core-tools/unpacking/math/4th.pdf)  [Standards for Mathematical Practice](http://www.corestandards.org/Math/Practice/)  *Utilize Everyday Math Kits for some manipulatives – ie. Number decks, dice, base-10 blocks etc.*  [Blackline Masters](http://wps.ablongman.com/ab_vandewalle_math_6/0,12312,3547876-,00.html)  Reference: Everyday Math – [Place Value in Whole Numbers](https://emccss.everydaymathonline.com/em-crosswalk/pdf/4/L02-03.pdf)  AAA Math – [Place Value](http://www.aaamath.com/plc.htm#topic1)  [Everyday Math Common Core Crosswalk](https://emccss.everydaymathonline.com/em-crosswalk/grades.php?grade=4) | | |
| **Monday**  **Introduce and establish math routines**  **Subject Integration**  ELA  Writing  Reading  Technology | **Whole Group**– *Diagnostic Assessment* for baseline data  Teach/Review Place Value for whole numbers.  Students create (or have available) a place value chart.  [PV Chart](https://grade4commoncoremath.wikispaces.hcpss.org/file/view/pvchart/441473684/pvchart)  What patterns do you notice? How can those patterns help you read and write a number? How are the families separated? (Make sure families are labeled correctly.)  **Video**- <https://learnzillion.com/lessons/16-understand-place-value-multiplying-by-a-power-of-10>  **Number talks** - Ex: Consider Bill and Joel’s numbers: Bill’s number – 45,932; Joel’s number – 24,395 | | | **Small Group**  **Math Mysteries** – Ex: The number of the day is a two-digit number in which the ones digit is three more than the digit in the tens place. Also, the ones digit is twice as great as the digit in the tens place. What is the number? (36) Create own mysteries. | | **Independent Work**  [Ordering numbers](http://mrnussbaum.com/placevaluepirates2/)  Journal Ideas - Students write how to read a number in math journals.  Ex. I can use \_\_\_\_\_\_ and label the commas \_\_\_\_\_\_\_\_to help me read a number. I can write a number in word form by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  Write down your telephone number. How many digits are in the number? What number does your telephone number make? Write the number in word form. |
| **Tuesday**  **Subject Integration** | **Whole Group**  **Literature -** [**Trouble with Monkeys – A Place Value Story**](http://www.youtube.com/watch?v=WmOjYsn49Ts)  Discuss.  [Place Value Jeopardy Template](https://jeopardylabs.com/play/4th-grade-unit-1-place-value)  [Place Value Jeopardy](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&ved=0CDEQFjAD&url=http%3A%2F%2Fwww.nscsd.org%2Fwebpages%2Fjrinella%2Ffiles%2Fjeopardy_place_value_only.ppt&ei=x9e9U4KdM4j0oASUoIDoAg&usg=AFQjCNEQVGrcWgFOZAUhVDFu1AVuzBowwQ) | | | **Small Group**  Create place value charts using sentence strips. Using number tiles, have students build numbers based on certain criteria. | | **Independent Work**  Solve number-grid puzzles  See [Everyday Math Lesson 2.3](https://emccss.everydaymathonline.com/em-crosswalk/pdf/4/g4_tlg_lesson_2_3.pdf) – Math Masters page 46. |
| **Wednesday**  **Subject Integration** | **Whole Group**  Skip count by thousands from 1,000 to 12,000. Students describe any patterns noticed. Brain Teasers–  Practice per standard <http://www.mathworksheetsland.com/4/> | | | **Small Group**  Decipher place value codes – Example: [Mystery Picture](http://www.dositey.com/2008/addsub/Mystery10.htm)– Students can create their own Mystery Pictures w/ overlays  Create a flipbook to illustrate the base ten system of numbers. | | **Independent Work**  Take a newspaper and find 8 numbers. Copy them down numerically and then write them in number name form. Turn in your work.  Use as many numbers as possible in a story problem. |
| **Thursday**  **Subject Integration** | **Whole Group**  Review video  [The number to the left is10 times the value of the number to the right](http://www.youtube.com/watch?v=USCY2UoYBT8&feature=related)  Discussion | | | **Small Group**  Students can roll up to seven dice and make the smallest and largest number; then write them in standard and word form. One student can write a form and a partner can write the other form. | | **Independent Work**  Write the number 1,403 in five different ways. Explain your answer.  Extend: Do the same with other numbers. |
| **Friday**  **Subject Integration** | **Whole Group**  Review reading and writing large numbers  Practice place value using a calculator – Reference [Everyday Math Lesson 2.4](http://www.ri.net/middletown/everydaymath/itlggrade4/U2-4.pdf)–Students enter a number in the calculator and then change one or more digits by adding or subtracting one or more numbers. | | | **Small Group**  Play place value war with Uno cards | | **Independent Work**  Example: (Adjust numbers as needed)  Name a number 1,000 less that each of these numbers.  Then, write problems for class to solve.  52,420\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  341,688 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  81,233\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  760,721\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **Reflection-Checking for Understanding**  Students in need of **remediation:**  **Action/Activities:**  Create a place value model using styrofoam cups.  Work with students on reading a set of two and three digit numbers. Provide a list of number words. Expand to higher places as students are ready.  [Place Value Study Jams](http://studyjams.scholastic.com/studyjams/jams/math/numbers/place-value.htm) | | | **Reflection-Checking for Understanding**  Students on **target:**  **Action/Activities:**  Practice place value skills using larger numbers.  [Place Value Puzzles](http://rethinkmathematics.com/attachments/File/games/PlaceValuePuzzleA.pdf) – Extension: Students create their own place value puzzles.  **Strategy: Make a Model** - **Squirrel’s Acorn Problem**  (Place Value to 100, Addition, Subtraction) | | | **Reflection-Checking for Understanding**  Students who need **enrichment:**  **Action/Activities:**  [Convert between place values](http://www.ixl.com/math/grade-4/convert-between-place-values)– IXL problem solving |

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| **Common Standards for Mathematical Practices** - Make sense of problems and persevere in solving them; Reason abstractly and quantitatively; Construct viable arguments and critique the reasoning of others; Model with mathematics; Use appropriate tools strategically; Attend to precision; Look for and make use of structure; Look for and express regularity in repeated reasoning |